

REMARKS

Claims 1-19 are pending in this application.

I. The Claims Are Patentable Over The Applied References

The Office Action (1) rejects claims 1-5, 8-13 and 16-19 under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2003/0169438 to Velde et al. (Velde) in view of U.S. Patent No. 5,878,195 to Mahy; and (2) rejects claims 6-7 and 14-15 under 35 U.S.C. §103(a) over Velde in view of Mahy, and further in view of U.S. Patent No. 5,587,063 to Poe et al. (Poe). Applicant respectfully traverses the rejections.

Regarding independent claims 1, 9 and 17-19, the applied references fail to disclose or render obvious the claimed combination of features including "a second conversion of determining the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the first color signal so that the second color signal is colorimetrically equal to the first color signal" (independent claims 1 and 18-19, and the corresponding unit and step of claims 9 and 17).

Velde discloses a method for separating an input color defined in a trajectory space into colorants in a color space. The method includes the steps of (1) color correction; and (2) color separation (Fig. 1). The Office Action cites to Fig. 1 and paragraphs [0177] and [0186]. The cited paragraph [0177] relates to Fig. 18, which shows separation of a color defined in an n-color space into a p-dimensional colorant space by use of an m-dimensional trajectory space.

The Office Action acknowledges that Velde fails to disclose (1) a first conversion of determining (N-3) variables of the second color signal from the first color signal, and (2) a second conversion of determining the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the first color signal, but cites to Mahy for these features.

Mahy discloses a method for color separation. For 3-ink or fewer-than-3-ink processes, Mahy discloses (1) inverting the printer model such as by inverting the Neugebauer equations, and (2) determining the most stable solution (Fig. 5). The Office Action cites to the paragraph at col. 16, lines 23-35, which relates to a generalization of Mahy's method for an n-ink process. In the section cited by the Office Action, for an n-ink process, Mahy discloses (1) considering n-3 colorants as parameters, (2) choosing colorant values within minimum and maximum values for each of the n-3 parameters, (4) sampling the n-3 dimensional parameter space, (4) obtaining the 3-ink colorant values from the printer model in the n-ink space by setting the n-3 colorants to their sampled values, and (5) inverting the 3-ink process and retaining the most optimum solution.

Velde discusses an article "Inversion of the Neugebauer Equations" by Mahy et al. (Mahy article) (Velde, paragraph [0014]) that provides a detailed explanation regarding use of the Neugebauer equations to solve the tristimulus values of a color as a function of the effective CMYK dot areas (Velde, paragraph [0014], lines 6-13). In the Mahy article, the amount of black colorant has to be determined based on some criterion, after which, the cyan, magenta, and yellow values are determined by inversion of the Neugebauer equations. The Mahy article "does not give hints" regarding determination of the black colorant amount (Velde, paragraph [0016]). Furthermore, Velde states that no strategies are known that are simple, robust, and that allow separation of the color and color management problems when employing the Neugebauer equations (paragraph [0020], lines 4-7). Accordingly, one of ordinary skill would have understood that Velde leads away from the use of the Neugebauer equations. Because Mahy (U.S. Patent No. 5,878,195), as described above, discloses use of the Neugebauer equations, one of ordinary skill would not have modified Velde by using the inversion of the Neugebauer equations as taught by Mahy because, as stated by Velde, this modification would be detrimental because the solution would not be robust and simple, and

would not result in the ability to separate the color and color management problems. Instead, one of ordinary skill would have been motivated, based on the references taken as a whole, to use Velde's solution. Thus, the references provide no reasons to modify Velde as proposed in the Office Action.

Poe, cited as disclosing undercolor removal (UCR), does not cure the deficiencies of Velde.

For the foregoing reasons, Applicant requests withdrawal of the rejections.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jonathan H. Backenstose
Registration No. 47,399

JAO:JHB/mab
Date: November 17, 2008

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
--